

CLAIMS

1. A cervical cap comprising:
a rim member dimensioned to fit a patient's
exocervix;

5 a cap dome of cured polymeric material extending
from the rim member to cover the exocervix and having an
opening to allow fluid flow out of the cap dome; and
a valve associated with the opening, constructed to
allow outflow while preventing fluid flow into said cap
10 dome.

2. The cervical cap of claim 1 wherein the valve
comprises a check valve sealingly positioned in said
opening.

3. The cervical cap of claim 1 wherein the valve
comprises a membrane disposed over an outer surface of the
dome and sealed to the cap dome in spaced regions.

4. The cervical cap of claim 2 wherein the valve
further comprises a thin membrane disposed over an outer
surface of the cap dome and sealed to the cap dome in spaced
20 regions.

5. The cervical cap of claim 2 wherein the check
valve is a duckbill valve.

6. The cervical cap of claim 1 wherein the valve
comprises a collapsed tube valve.

7. The cervical cap of claim 2 wherein the valve
further comprises a collapsed tube valve.

a *sub B1* 8. The cervical cap of claim 7 wherein the membrane has a thickness of less than 0.5 mm.

gpc 9. The cervical cap of claim 8 wherein the membrane has a thickness of less than 0.25 mm.

a *sub B1* 10. The cervical cap of claim 3 wherein the membrane comprises a silicone polymer.

11. The cervical cap of claim 1 wherein the rim includes circumferential ridges on its inner surface.

sub B1 10 12. The cervical cap of claim 1 further comprising a portion that is impregnated or coated with a therapeutic agent and that is constructed to slowly release the therapeutic agent during use of the cap.

13. The cervical cap of claim 12 wherein said portion is removable.

15 14. The cervical cap of claim 13 wherein said portion is a removable ring that is press-fit onto the cap adjacent the rim.

sub B1 20 15. The cervical cap of claim 12 wherein the therapeutic agent is selected from the group consisting of microbicides, spermicides, medications, and combinations thereof.

sub B1 16. The cervical cap of claim 12 wherein the therapeutic agent is an iodine complex.

17. A cervical cap comprising a cap body
constructed to cover the exocervix and prevent ingress of
sperm and fluids, and a portion, associated with the cap
body, that is impregnated or coated with a therapeutic agent
5 and is constructed to release the therapeutic agent over a
period of time during use of the cap.

18. The cervical cap of claim 17 wherein said
portion is removable. *a*

a
10 *Pat 89* 19. The cervical cap of claim ~~18~~¹⁷ wherein said
portion is a removable ring that is press-fit onto the cap
adjacent the rim.

20. The cervical cap of claim 17 wherein the
therapeutic agent is selected from the group consisting of
microbicides, spermicides, medications, and combinations
thereof. *15*

21. The cervical cap of claim 17 wherein the
therapeutic agent is an iodine complex.

22. The cervical cap of claim 17 wherein the
therapeutic agent functions as both a spermicide and a
20 microbicide.

Pat B10 23. A method of protecting the exocervix of a
female, comprising applying to the exocervix a cervical cap
that includes a portion that is impregnated or coated with a
therapeutic agent, the portion being constructed to slowly
25 release the therapeutic agent during use of the cap.

24. The method of claim 23 further comprising applying the portion to the cervical cap so that it will be removable.

25. The method of claim 24 further comprising
5 instructing the female as to when the removable portion should be replaced.

26. The method of claim 24 wherein the portion comprises a removable ring and the method further comprises press-fitting the ring onto an outer surface of the cervical
10 cap.

27. The method of claim 23 wherein said therapeutic agent is selected from the group consisting of spermicides, microbicides, medications, and combinations thereof.

28. A method of measuring the diameter of an
15 exocervix of a patient comprising the steps of:

(a) providing a ring gauge comprising a plurality of ring members having different diameters, means for positioning a selected ring member on the patient's exocervix;

20 (b) inserting the ring gauge, with one of the ring members, having a first diameter, attached thereto, into the vagina of the patient;

(c) positioning the ring member around the patient's exocervix and determining whether the rim member fits the
25 exocervix; and

(d) repeating steps (a) - (c) with ring members having different diameters until a ring members is chosen which fits the exocervix, the diameter of this ring corresponding to the diameter of the patient's exocervix.

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29. A method of claim 28 wherein the positioning means comprises a pair of elongated members adapted to be removably and rotatably attached to the ring member.

30. A method of claim 28 wherein the gauge further includes a measuring means for measuring the depth of the exocervix, and said method further includes the step of (e) positioning the measuring means to determine the depth of the exocervix.

31. A method of claim 30 wherein the positioning means comprises a pair of elongated members adapted to be removably and rotatably attached to the ring member and the measuring means comprises a measuring member movably mounted on one of the elongated members.

32. A method of claim 28 further comprising the steps of, prior to inserting the ring gauge:

(a) inserting a cervical plunger, having a plunger member and a tube member in fluid communication with the plunger member;

(b) placing the cervical plunger on the exocervix;

(c) drawing a vacuum through the tube member to draw the exocervix against an inner surface of the plunger member; and

(d) positioning the cervix by moving the tube member.

33. A kit for use by a clinician in forming a custom cervical cap in situ, in a patient's body, comprising in combination a rim member dimensioned to fit an exocervix, a curable material, and a means for applying the curable material.

ant.
34. A kit for use by a clinician in forming a custom cervical cap in situ, in a patient's body, comprising in combination a rim member dimensioned to fit an exocervix, a shell member dimensioned to be mounted on said rim member,
5 a curable material, and a means for applying the curable material.

35. A kit of claim 34 wherein the shell member has an aperture.

36. A kit of claim 34 wherein the shell member has
10 at least one tube.

37. A kit of claim 33 further comprising a ring gauge.

38. A kit of claim 34 further comprising a ring gauge.

39. A kit of claim 34 further comprising a cervical
15 plunger.

40. A kit of claim 35 further comprising a cervical plunger.

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